

Anti-Glycoprotein D [HSV8] Standard Size Ab03056-15.0

This antibody does not have a J-chain and therefore presents as a hexamer, rather than a pentamer.

This reformatted human antibody was made using the variable domain sequences of the original Human Fab format for improved compatibility with existing reagents assays and techniques.

Isotype and Format: Human IgM, Kappa

Clone Number: HSV8

Alternative Name(s) of Target: gD; Envelope glycoprotein D

UniProt Accession Number of Target Protein: Q69091

Published Application(s): in vivo, inhibition, IP, neutralizing, WB, ELISA, IF

Published Species Reactivity: Herpes simplex virus (HSV)

Immunogen: The original antibody was derived from a human antibody library displayed on phage, and identified by panning with herpes simplex virus proteins.

Specificity: The antibody binds to glycoprotein D (epitope located between residues 234 and 275).

Application Notes: Screening of the phage display for significant binding towards HSV-1 and HSV-2 was done using ELISA; The Fab supernates were tested in immunofluorescence studies with virus infected cells. The protein recognized by the Fab was identified via immunoprecipitation. Western blot confirmed specificity Fab for gD. Fab fragment neutralizes infectivity and prevents cell-to-cell transmission of herpes simplex viruses 1 and 2. The Fab fragment neutralized HSV-1 at 0.25 ug/ml (50% reduction) and HSV-2 at 0.05 ug/ml. This Fab also inhibited plaque formation when applied to virus-infected monolayers, completely abolishing HSV-2 plaque development at 25 ug/ml 72 hours postinfection, indicating the ability of the Fab to prevent cell-to-cell spread of virus (Burioni et al, 1994; PMID:8278393). In vivo experiments showed that the antibody (IgG1) reduced the mortality rate in mice when administered before HSV type 1 infection and it prolonged survival times when administered up to 24 hours postinfection (Sanna et al, 1996; PMID:8553581). The epitope mapping of this antibody was done using competition ELISA. The antibody demonstrated potent activities against cell-associated virus in a syncytium inhibition assay (De Logu et al, 1998; PMID:9774565). IgG1, Fab and F(ab)2 fragments were tested against HSV-2 in mice in vivo and they were approximately equally protective (Zeitlin et al, 1996; PMID:8918548).

Antibody First Published in: Burioni et al. Recombinant human Fab to glycoprotein D neutralizes infectivity and prevents cell-to-cell transmission of herpes simplex viruses 1 and 2 in vitro. Proc Natl Acad Sci U S A. 1994 Jan 4; 91(1): 355-359. [PMID:8278393](https://pubmed.ncbi.nlm.nih.gov/8278393/)

Note on publication: The article describes the generation and characterization of the antibody.

Product Form

Size: 50 µg Purified antibody.

Purification: Affinity Purified using a recombinant lectin column

Supplied In: PBS with 0.02% Proclin 300.

Storage Recommendation: Store at 4°C for up to 3 months. For longer storage, aliquot and store at -20°C.

Concentration: 1 mg/ml.

Important note – This product is for research use only. It is not intended for use in therapeutic or diagnostic

procedures for humans or animals.